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3 May 1965

MEMORANDUM FOR: Assistant Director, Computer Services

SUBJECT   :   Development Division Monthly Report
                   for April 1965

I.   ACTIVITY HIGHLIGHTS

A.   CHIVE Project

1.   Phase II Documentation

The CHIVE Phase II Report has now entered the final stages of editing, review, and printing. Extensive editing has been completed and detailed review is now concentrated on Volume V. The current status of the report is as follows:

--Vol. 1 ("System Summary")

--Vol. 2 ("Management Survey")

Both volumes are presently being reviewed by OCR personnel.

--Vol. 3 ("Implementation Plan")

This volume is now in final form and awaiting final proofing prior to being sent to Printing Services Division for reproduction.

--Vol. 4 ("System Requirements")

Has been printed.

--Vol. 5 ("System Organizations, Functions, and

Procedures")

Now undergoing review by OCR.

--Vol. 6 ("Document Delivery System")

This volume is being printed.

--Vol. 7 ("EDP System")

Final editing is complete and the final version

is being typed.

2. CHIVE Indexing Experiment

(a) Experiment Queries

The initial 115 queries representing 61

queries previously levied against OCR, 31 new

queries posed by OCR divisions, and 23 artificial

queries posed by China research analysts have

been machine processed. The old OCR queries

were rerun against the respective registers and

comparisons of CHIVE and OCR results have been

completed on most of the queries. A few of

these queries have not been completed by OCR.

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The new OCR queries have been evaluated and discussed with four of the Division Chiefs or their representatives. Early next month, discussions will be held with the two remaining divisions, Biographic Register and Machine Division. Eleven of the research analyst queries have been evaluated by the analysts and comparisons with CHIVE judgments of relevancy have been completed. Discussions with the research analysts have generated three new queries, and a few more will probably be solicited from the remaining analysts.

(b) Experiment Products

The query phase of the experiment should be completed in 1-2 weeks. This will be followed by an in-depth evaluation of the results and a written report slated for June publication.

(c) Programming Support to the Experiment

During the month, additional query groups were run against the data base using the AD003 program. These runs brought the average retrieval time requirements for AD003

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(including TOP runs to recover index record print-out) to 1 hour, 28 minutes per batch. There was an average of 2.5 queries and 26.3 parameters ("COND" statements) per batch. The number of records selected ranged from 7 to 3,970 per batch.

The completion of these runs brings the basic AD003 program activity to an end, except for possible supplemental and special requirements in support of the continuing experiment analysis.

The SUBMO/SUBPR program series was completed, and the output listing was delivered to the analysis section of the CHIVE Experiment Staff. This listing shows each RSC/RMO combination used in the indexing process and summarizes totals for this usage.

During April, coding of queries was completed; and the majority have been processed and returned to the CHIVE test group for evaluation. Runs against the main data base continued to average slightly more than 2 hours

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each, of 1410 time, and runs against the special file (7000 series) averaged approximately 15 minutes each.

A special purpose program, JACK 1, designed to produce sample listings of suggested indexer reference aids was coded and debugged.

3. CHIVE Task Descriptions

During the month a series of meetings of senior staff and contractor personnel was held in order to identify:

(a) Task areas, to which personnel could be immediately assigned, in which work must be done in order to provide for an orderly transition to the implementation tasks of the CHIVE Development Phase.

(b) Areas of responsibility so that the senior staff members might prepare general functional descriptions. These general descriptions would provide guidance to the other staff members in the preparation of

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individual, short term, task descriptions.
As a preliminary result of these meetings, pro tem assignment of senior staff personnel responsibilities was accomplished. These personnel were in turn made responsible for the activities, assignments, and products of specific individuals on the CHIVE Project.

Task descriptions have been submitted for approximately six people. The remainder will be prepared in May.

4. Inherited File Conversion

Two tasks which pertain to the conversion of inherited files have been identified in the Intellofax Reference System and Special Register areas. In general, these tasks will consist of analyzing the needs of these files and investigation of the feasibility of conversion to tape or strip files and the required design effort needed for conversion.

The scope and objectives are currently being defined, which will result in the tasks being delineated to the detail required by the people assigned.

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5. Input to Agency Hardware/Software Plan

The Development Division submitted its estimates of hardware/software needs through December 1969 in accordance with the schedule prepared by Chief, Technical Staff.

6. Backup File Storage

A request from the Assistant Director, Computer Services to supply a schedule and procedures for backup files of critical tapes has been reviewed with Development Division personnel. Further coordination with Chief, Operations Division is necessary in order to provide an input which will satisfy the requirements of uniformity and stability.

7. EDP Design

During the month considerable effort was expended in estimating the processing time required on the IBM 360/60 for the CHIVE EDP System. Disk and data cell storage requirements were also projected.

Work is continuing on detailing CHIVE EDP functional elements.

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8. Organizational Realignment

On 1 May the CHIVE Support Staff will phase out with the creation in OCR of a Systems Analysis Staff (SAS) headed by [   ] A "CHIVE   25X1

Test Branch," headed by [   ] will be   25X1

organized. The new branch will probably perform some of the functions which were to have been delegated to the CHIVE Staff until SAS has completed staffing and training.

B. ALP Project

1. Steno Training

A second class in basic stenotype theory was begun on 21 April with 14 students.

The 20 modified stenograph machines for ALP operations were received during the month. Fourteen of them were assigned to FDD for use by the speed-building class.

2. Lexicography Developments

The Russian lexiography effort at IBM Research has been completed and a major update of the Russian Master Dictionary is now underway. This version of

the dictionary will reflect all additions and deletions made by the agency lexicographers.

The steno lexicography effort has determined that 10,000 entries must be made to the present GYA version of the steno dictionary to cover all steno forms of the 16,000 words developed from the IBM frequency run on 180,000 words of FDD report material. This is in addition to the approximately 2,500 entries to be put into core, and the 1,000 entries generated by the ALP Branch to resolve ambiguities.

3. Hardware Status

The entire ALP system is now undergoing system debugging at Kingston. The lexical processor and photostore model have been integrated and linked to the 1401.

The steno mark reader is now being tested. In this connection, the agency provided sample tapes from each of the 20 modified machines. A procedure is being set up to provide tapes from the modified stenograph machines on a regular basis for continued testing of the mark reader.

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The scheduled delivery date for the hardware is still the middle of July.

4. **Programming Developments**

The steno transcription programs are being developed according to schedule. The process word programs for Russian translation are about two weeks behind schedule.

5. **ALP Support to OC**

The Special Programs Staff of the Office of Communications was provided with four copies of an item length sort of 50,000 Russian words derived from a frequency count of 550,000 running words of Russian political text on ALP tape. The magnetic tapes containing this word list were also made available for their use. The ALP Branch is now looking into the availability of texts in the Romance languages and in German in machine readable form for OC.

C. **Briefings, Meetings, Miscellaney**

1. Mr. C. Bourne was on site from 31 March - 21 April. His current task is a study of the indexer's work station to determine the mode of presentation of

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working aids to the indexer and methods for reducing the indexer's look-up and transcription time.

2. [   ] attended a demonstration of the IBM 2321 Data Cell on 8 April.   25X1

3. [   ] attended a OCS seminar on Direct Access Storage Concepts on 15 April.   25X1

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4. [   ]

[   ] attended an all-day seminar presented by Messrs. Lancaster and Herner of Herner and Co. on "Evaluation of Document Retrieval System" on 13 April.

5. The DD/I CHIVE officer was briefed on CHIVE File Maintenance and Query Capability on 19 April.

6. [   ] attended the 2nd Annual National Colloquium on Information Retrieval in Philadelphia, Pa. on 23 April.

7. [   ] attended an IBM Course on Direct Access Storage Concepts at the IBM Education Center from 26 April through 28 April.

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8. [   ] attended a symposium conducted by the CODIB Task Team 5 (on Biographics) [   ] on April 21 through April 23.

9. [   ] attended a briefing by Messrs. Farrard and Romain of Autonetics Division of North American Aviation, Inc. on a large capacity disk file on April 20.

10. [   ] attended a briefing conducted by personnel of Data Trends, Inc. on a real time input/output terminal on April 8.

11. [   ] attended a briefing by Laddie Stahl of General Electric on a microfilm document scanning system on April 7.

12. Development Division personnel attended a briefing by the Deputy Assistant Director, Computer Services on OCS hardware plans on April 7.

13. An ALP project status meeting was held with OCR/FDD and IBM on April 28.

14. [   ] as chairman of the Working Group on Transliteration, Task Team III, CODIB, conducted group meetings on April 7 and 27.

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15. [ ] attended a three and one-half day course on COBOL at the IBM Education Center from April 20 through April 23.

II. PERSONNEL

A. Agency

1. [ ] was released from the CHIVE Support Staff on 2 April to return to duty in Special Register, OCR.

2. [ ] left the Development Division on April 30 to take a position in OEL.

B. IBM

1. Personnel currently assigned to Project CHIVE:

(Full Time)

--Alper, B.

--Flynn, N. J.

--Hooper, R.

--Lois, S. (Mrs. J. V. Oberthaler)

--Luke, J.

--Miles, R.

--Moore, P.

--Pittard, L.

--Siegmann, R.

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(Part Time)

--DiCostanzo, J.

--Murray, P.

2. Personnel Changes

Mr. Merikallio has completed his work on the project during the month of April. Messrs. DiCostanzo and Murray will continue on an "as-needed" basis.

Messrs. Flynn and Siegmann returned to the project on 19th of April. They are currently working on the development programming area.

III. BUDGET AND FISCAL

A. IBM/CHIVE Contract

The man-hours expended during the month of April total 1,507.

Expenditures to date on the current contract are approximately 20% of the contract.

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Chief
Development Division

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